



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

647.0210
Job Sheet 168280



Part No: 647.0210

Job Qty: 12 ea

Part Name: Rail



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 11/13/17

Job Tracking No:

Due Date: 12/29/17

Created By: Linda Lacelle

Type: Stock

Description:

Customer: Alpine Aerotech LP - Kelowna (CALPI02)

1260 Industrial Road Kelowna, BC, V1Z 1G5 Canada ph:(250) 769-6344 fx:(250) 769-6303.

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	12 Ea		12/28/17	0.00	0.00	Start Up Machining		SC
100	Bandsaw	12 pcs		12/29/17	0.00	0.09	Bandsaw1		SC
110	CNC Vertical Machining	12 pcs		12/29/17	0.67	12.12	HAAS 1		SC
120	QC	12 pcs		12/29/17	0.00	0.00	QC2		SC
130	QC	12 pcs		12/29/17	0.00	0.00	QC8		SC
140	Outsource	12 pcs		12/29/17			ATG001-VC	15	SC
150	Packaging	12 pcs		12/29/17	0.00	0.00	Packaging2		SC
155	QC	12 pcs		12/29/17	0.00	0.00	QC5		SC
180	Packaging	12 pcs		12/29/17	0.00	0.00	Packaging3		SC
190	QC21-SA	12 Ea		12/29/17	0.00	0.00	QC21		SC

Part Op 100 - Cut Blank at 15.800"

Descriptions: 110 - 1-Machine per folio FB138

140 - Issue P/O to ATG : AS PER MPP-172 SECTION 2.1, HARD ANODIZE COLOR BLACK, PER IAW MIL-A-8625 TYPE 3 CLASS 2 AS PER MPP-172 SECTION 4.2, PRIME AS PER IAW MIL-PRF-23377 TYPE 1 CLASS N
180 - ***IDENTIFY AS PER APICAL MPP-120 BY STAMPING P# AND REV***

Job Allocations

Operation	Component Part	Required	Inventory	Allocated	Std Qty
90-Start up Operation	M7075T6B1.750X02.250	16	0	0	0
5019469	2.64 (M138497)	13.2 (5017381)	5019469		

Part Specifications

Spec No	Description	Target/Tolerance	Limits	Type	Special Comments
1	Rail	0.201Inches + 0.005 - 0.001	0.206 0.200	Diameter	
2	Rail	0.229Inches ± 0.005	0.234 0.224		
3	Rail	0.190Inches ± 0.010	0.200 0.180		
4	Rail	1.100Inches ± 0.010	1.110 1.090		
5	Rail	0.830Inches ± 0.005	0.835 0.825		

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

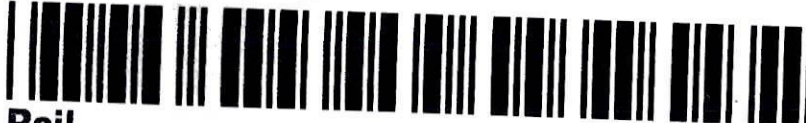
Work Order: <u>168280</u> Part No. <u>647.0210</u> NCR No. _____	DISPOSITION Rework ☐ Scrap ☒ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS			
		Skid-tube ☐ Machining ☒ Thermoforming ☐ Large Fab ☐	Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐	Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐	Engineering ☐ Quality ☐ Other ☐
Date: <u>17/12/13</u>	Step #: _____	QTY Effective : _____			MRB (QSI042) Approval <u>17/12/13</u>
Description Work Order Deviation		Disposition			Completed By <u>mm</u>
<u>drill chuck was not tight enough.</u> <u>drill bit got out and scratch the part and drill one hole off-set</u>		<u>Scrap</u>			Lead hand / Supervisor Approval Verification <u>17-12-13</u>
					QC / QA Coordinator Approval <u>17-12-13</u>
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☒ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☒	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☒	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
		OTHER : _____			

6	Rail	2.000Inches ± 0.010	2.010 1.990	
7	Rail	0.340Inches $+ 0.000$ $- 0.005$	0.340 0.335	
8	Rail	0.125Inches ± 0.005	0.130 0.120	Radius
9	Rail	0.063Inches ± 0.005	0.068 0.058	Radius

Plex 12/8/17 1:44 PM dart.poulin.mario

DART
AEROSPACE
S019474

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K64 1K7
CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com



Rail

PART NO: 647.0210

Revision:

Operation:

Change No:

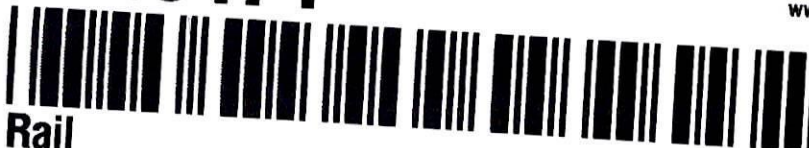
Start up Operation

Mfg Date: 12/10/17

Job No: 168280

DART
AEROSPACE
S019474

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K64 1K7
CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com



Rail

PART NO: 647.0210

Revision:

Operation:

Change No:

Outsource

Mfg Date: 12/10/17

Job No: 168280

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

FIRST ARTICLE INSPECTION CHECKLIST

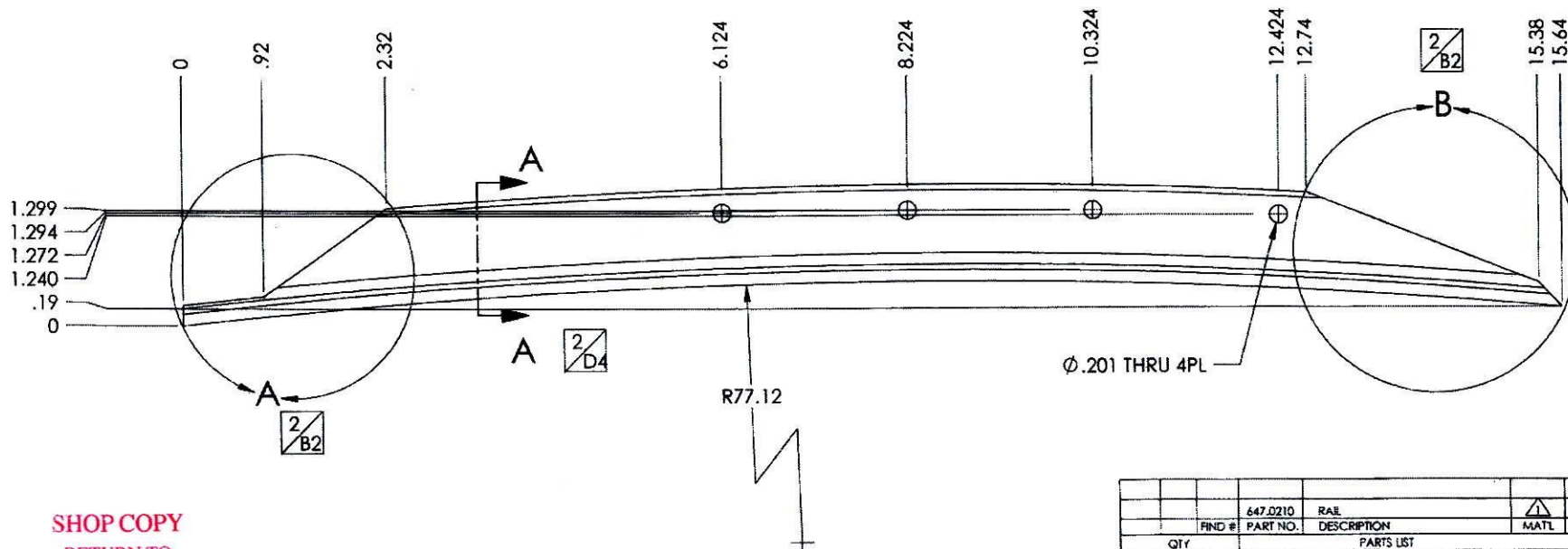
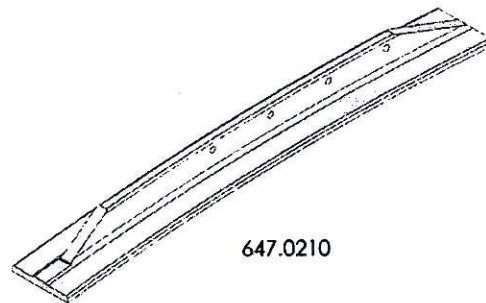
Rev	Date	Change	Revised by	Approved
A	14.01.21	New Issue	KJ	

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NOTES:

- 1 MATERIAL: 7075-T6 ALUMINUM PER AMS-QQ-A-225/9
- 2 FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III CLASS 2.
COLOR BLACK: CARDINAL 4860-50 PRETREATMENT PRIMER:
PRIME IAW MIL-P-23377J TYPE I CLASS N: 1-2 MIL MAX
- 3 DEBURR AND BREAK ALL SHARP EDGES
- 4 IDENTIFY IAW MPP-120

REV	DESCRIPTION	DATE	APPROVED
1	LAST PRELIMINARY REVISION PER:		N/C
1	INITIAL RELEASE	DESIGNER	P. BRANG



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 168280

DAS
30
9-89

NOV 16 2017

647.0210	RAIL		
PART NO.	DESCRIPTION	MATL	SPEC
QTY	ORIGINAL DATE	PARTS LIST	
NEXT ASSY (S)	DATE	APICAL INDUSTRIES	
646.9500	DATE	2608 TEMPLE HEIGHTS DR.	
	DATE	OCEANSIDE, CA. 92056-3512 (760)724-5300	
	DATE	RAIL	
	DATE	SCALE NONE	
	DATE	SHEET 1 OF 2	

DQA: _____ Date: _____



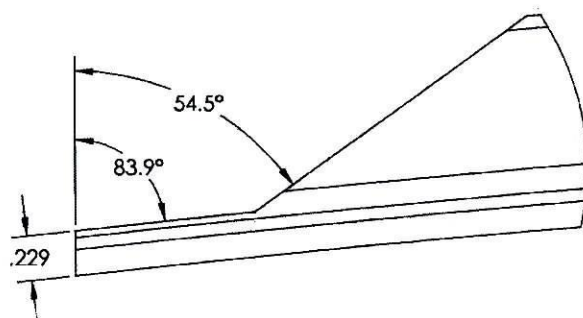
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

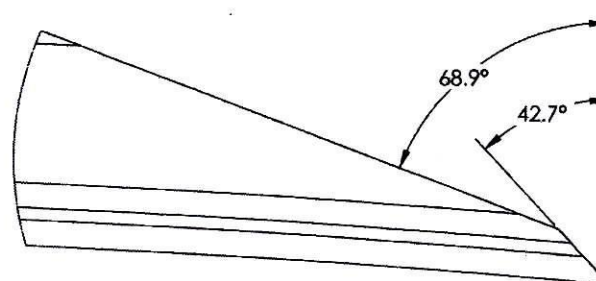
Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

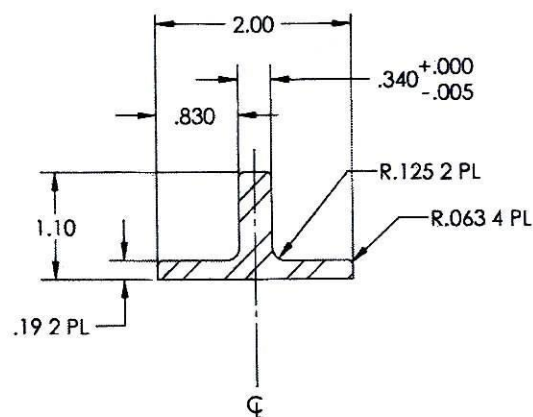
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DETAIL A $\frac{1}{C2}$



DETAIL B $\frac{1}{C8}$



SECTION A-A TYP $\frac{1}{C3}$

ORIGINAL DATE REVISED DATE		APICAL INDUSTRIES	
DRAWN BY J. JACKSON		2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
CHECKED BY P. BRAVO		RAIL	
DRAWING APPROVAL P. BRAVO			
CONTRACT NO.			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 1 PLACE DECIMALS ±.01 2 PLACE DECIMALS ±.005 ANGLES ±.5°		SHEET B	REV N/C
		CAGE CODE 07M26	DWG. NO. 647.0200
		SCALE: NONE	SHEET 2 OF 2

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

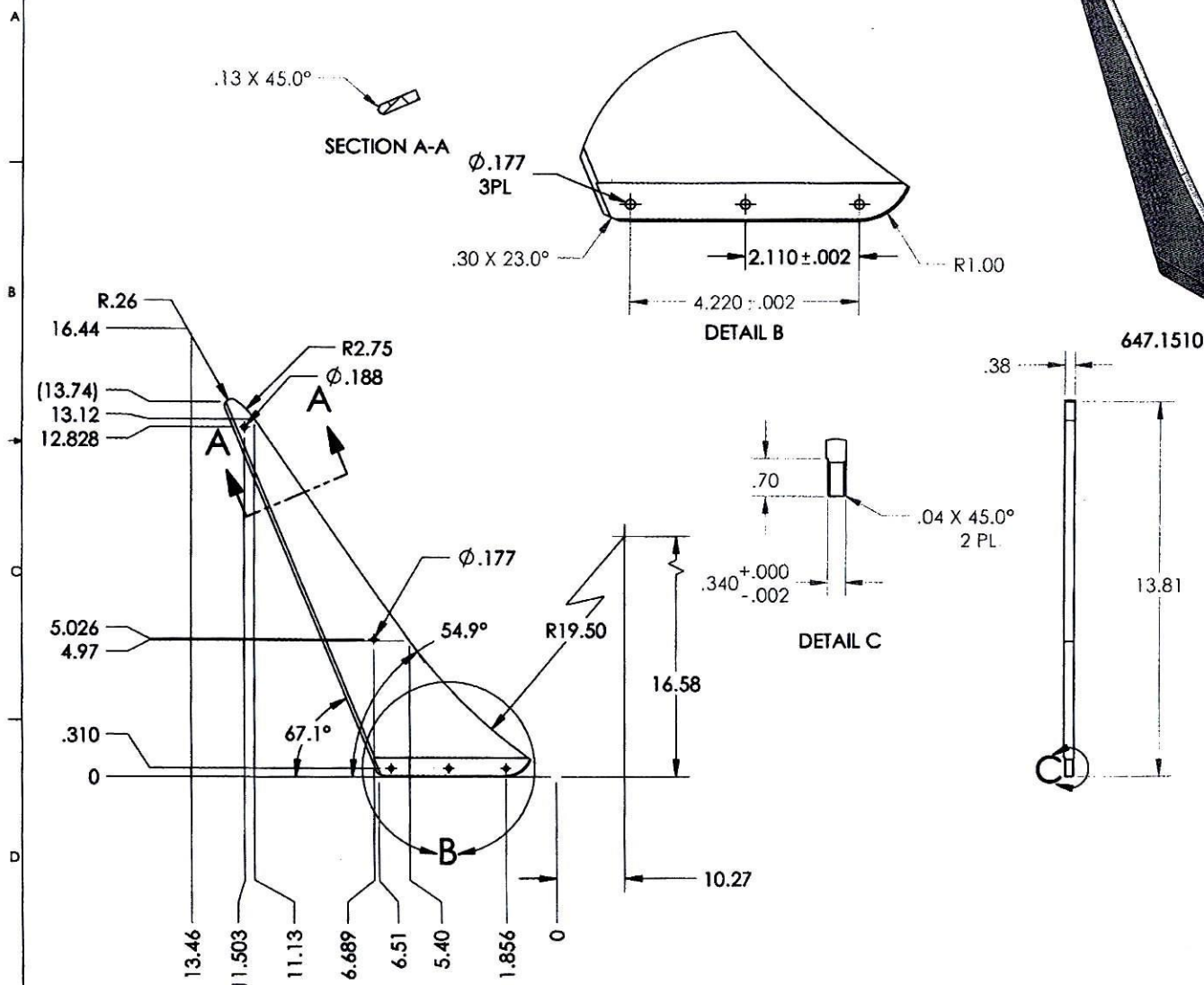
Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	☐ OTHER : _____			

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
REV.	LAST PROTOTYPE REVISION: P01		N/C
N/C	INITIAL RELEASE	04/10/09	P. BRAVO
A	INCORPORATED ECH 02960, 0467A, 04743	11/17/14	P. BRAVO
B	INCORPORATED ECH 05331	02/29/16	P. BRAVO
C	INCORPORATED ECH 05344	03/15/16	P. BRAVO
D	INCORPORATED ECH 05361	11/01/16	P. BRAVO

NOTES:

- 1 MATERIAL: ALUMINUM 7075-T651 PER AMS-QQ-A-250/12
- 2 FINISH PER MPP-172 SECTION 2.1, 3.3 & 4.3, 1-2 MIL MAX
- 3 DEBURR AND BREAK ALL SHARP EDGES
- 4 IDENTIFY IAW MPP-120
- 5 APPLY F/N 5 AS REQUIRED TO ALL FAYING SURFACES OF F/N 2 & 3 UPON ASSY
- 6 MAKE FROM 647.1513



		7	647.1514	UPPER DEFLECTOR					
		6	647.1513	UPPER DEFLECTOR					
	A/R	5	601.2045	RTV, LOCTITE 598					
	2	4	600.0523	RIVET			MS20470ADA-12		
	1	3	647.1512	BREAKAWAY TIP					
	1	2	647.1511	LOWER DEFLECTOR					
		1	647.1510	UPPER DEFLECTOR					
	X		647.1501	LOWER DEFLECTOR ASSY					
	1501	FIND #	PART #	DESCRIPTION			MATL		SPEC.
QTY		PARTS LIST							
NEXT ASSY (S)		ORIGINAL DATE				3030 ENTERPRISE CT.			
647.1400		06-10-09				SUITE A			
		DRAWN BY: J. GARDNER				VISTA, CA 92081			
		CHECKED: P. BRAVO				(760) 724-5300			
		DRAWING APPROVAL: P. BRAVO							
		06-10-09							
		CONTRACT NO.							
		UNLESS OTHERWISE SPECIFIED				DEFLECTORS			
		DIMENSIONS ARE IN INCHES							
		TOLERANCES ARE:							
		2 PLACE DECIMALS ±.01							
		3 PLACE DECIMALS ±.005							
		ANGLES ± .5°							
		DART AEROSPACE				APCAL INDUSTRIES, INC.			
						980 DART AEROSPACE			
						SITE			
						CAGE CODE			
						07MA26			
						DWG. NO.			
						647.1500			
						REV.			
						D			
						SCALE NONE			
						1 SHEET			
						OF 7			

DQA: _____ Date: _____



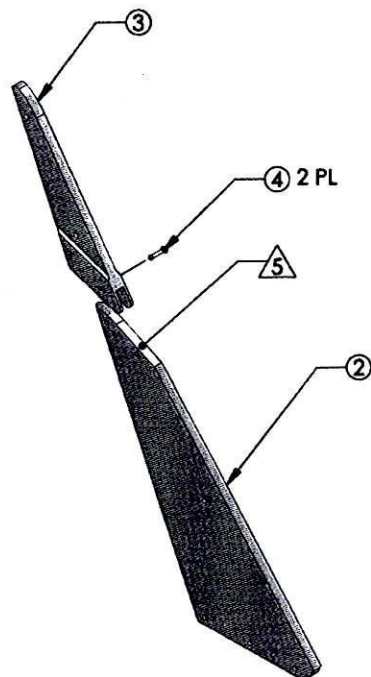
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

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647.1501 SHOWN EXPLODED

ORIGINAL DATE JUN-04-1991		06-10-09	
DRAWN BY J. GARDNER		P. BRAVO	
DRAWING APPROVAL P. BRAVO		06-10-09	
CONTRACT NO.			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°			
SEE CAGE CODE B 07M26		DWG. NO. 647.1500	
SCALE NONE		REV. D	

DART 3030 ENTERPRISE CT.,
SUITE A
VISTA, CA, 92081
(760)-724-5300
APICAL INDUSTRIES INC.
DBA DART AEROSPACE

DEFLECTORS

SHEET 2 OF 7

DQA: _____ Date: _____



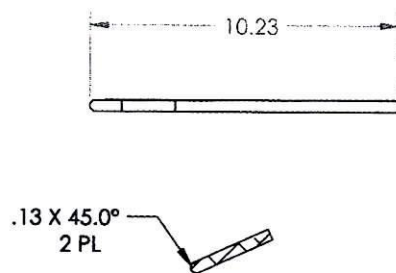
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

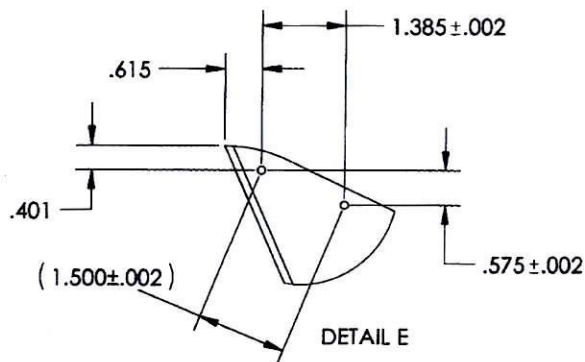
Work Order update only ☐

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Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
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			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

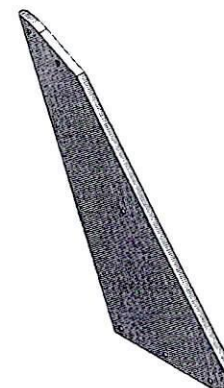
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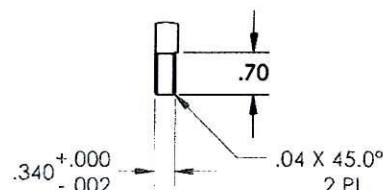
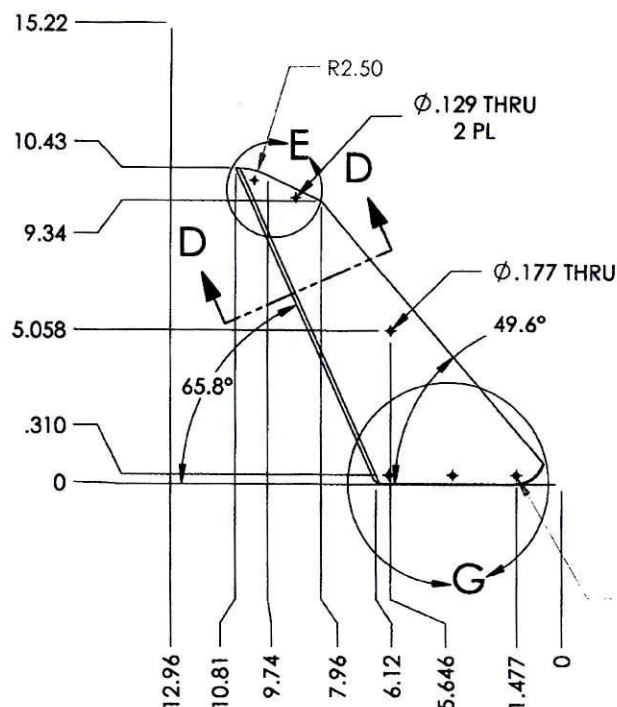
SECTION D-D



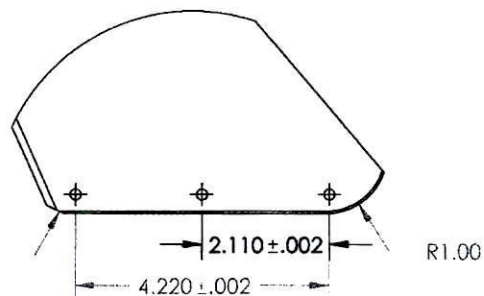
DETAIL E



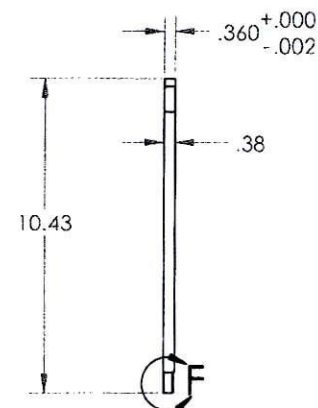
647.1511



DETAIL F



DETAIL G



ORIGINAL DATE: 06-10-09		3030 ENTERPRISE CT., SUITE A	
DRAWN BY: J. GARDNER		VISTA, CA. 92081	
CHECKED BY: P. BRAVO		(760) 724-5300	
DRAWING APPROVAL: P. BRAVO		APICAL INDUSTRIES INC.	
DATE: 06-10-09		DBA DART AEROSPACE	
CONTRACT NO.		DEFLECTORS	
SIZE: B	CAGE CODE: 07M26	DWG. NO.: 647.1500	REV. D
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. TOLERANCES ARE: 2 PLACE DECIMALS ± .01, 3 PLACE DECIMALS ± .005, ANGLES ± .5°		SCALE: NONE SHEET 3 OF 7	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

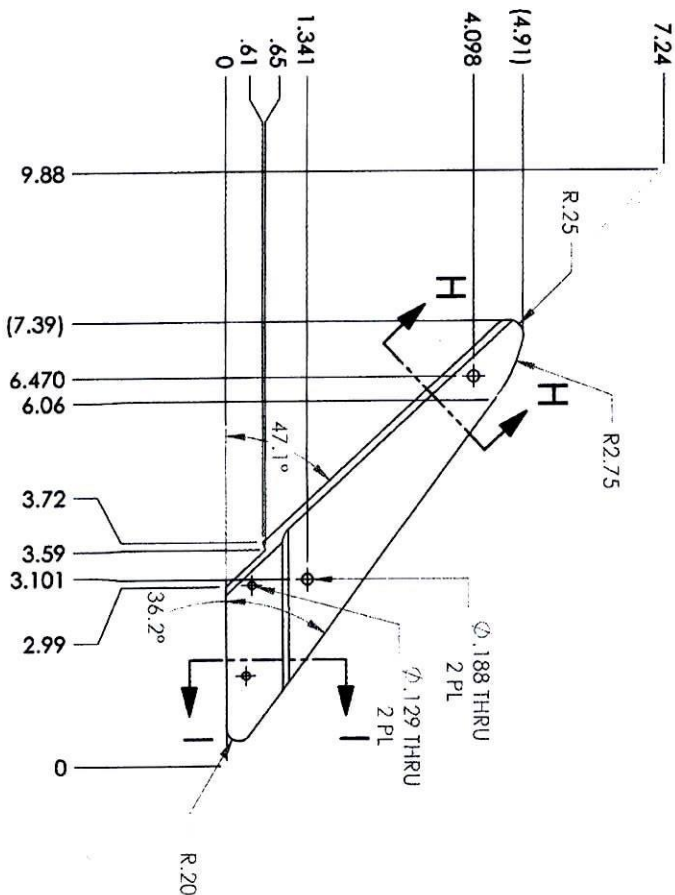
Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER :					

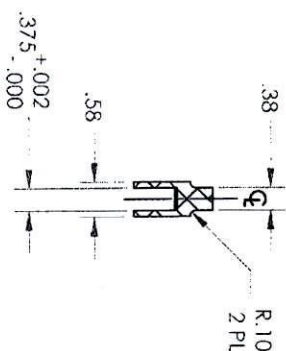
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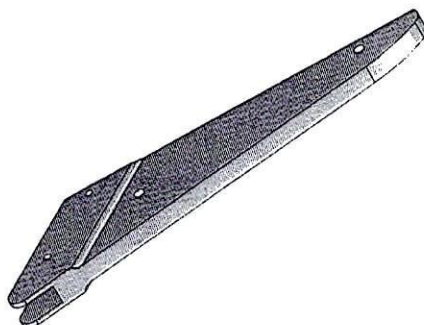
SECTION H-H



SECTION H-I



647.1512



ORIGINAL DATE		REV	
10-20-20		1	
DESIGNED BY		CHECKED BY	
J. GARDNER		P. BAYO	
DRAWING APPROVAL		DATE	
10/20/20		10/20/20	
CONTRACT NO.		PROJECT NO.	
1000000000		1000000000	
SHEET CONTENTS (REVISED)		SHEET NO.	
1000000000		1000000000	
TOTAL SHEETS 181		SHEET NO.	
181		181	
SCALE		SHEET	
NONE		4 OF 7	

PART 3000 ENTERPRISE CT.	
AEROSPACE	
VIA, CA 92081	
(909) 724-5000	
DEFLECTORS	
REV	NO.
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2	07/26/20
3	07/26/20
4	07/26/20
5	07/26/20
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100	07/26/20

DQA: _____ Date: _____



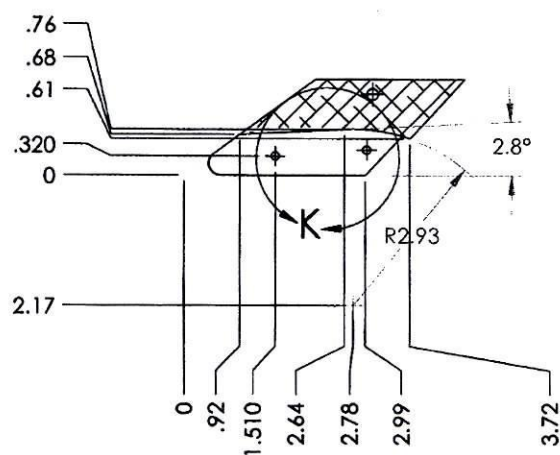
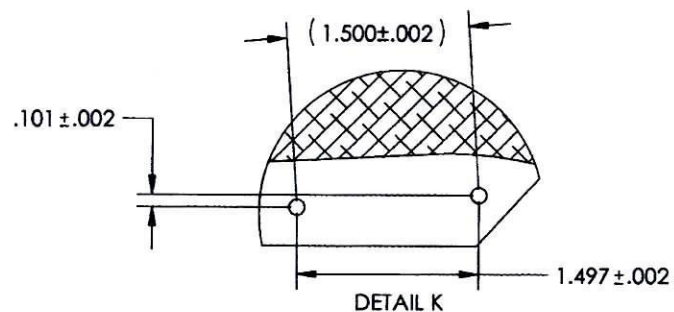
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

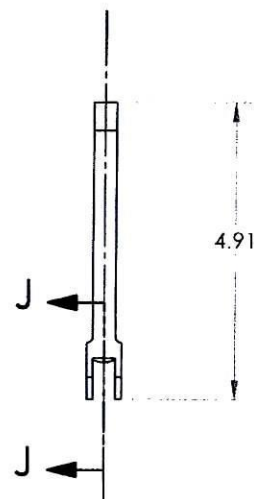
Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

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SECTION J-J



647.1512 RIGHT VIEW

ORIGINAL DATE (MM-DD-YY) 06-10-09		DART 3030 ENTERPRISE CT., SUITE A VISTA, CA. 92081 (760)-724-5300 APICAL INDUSTRIES INC. DBA DART AEROSPACE	
DRAWN BY J. GARDNER	CHECKED P. BRAVO		
DRAWING APPROVAL P. BRAVO	DATE 06-10-09		
CONTRACT NO.			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ± .01 3 PLACE DECIMALS ± .005 ANGLES ± .5°			
SIZE B	CAGE CODE 07M26	DWG. NO. 647.1500	REV. D
SCALE NONE		SHEET 5 OF 7	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

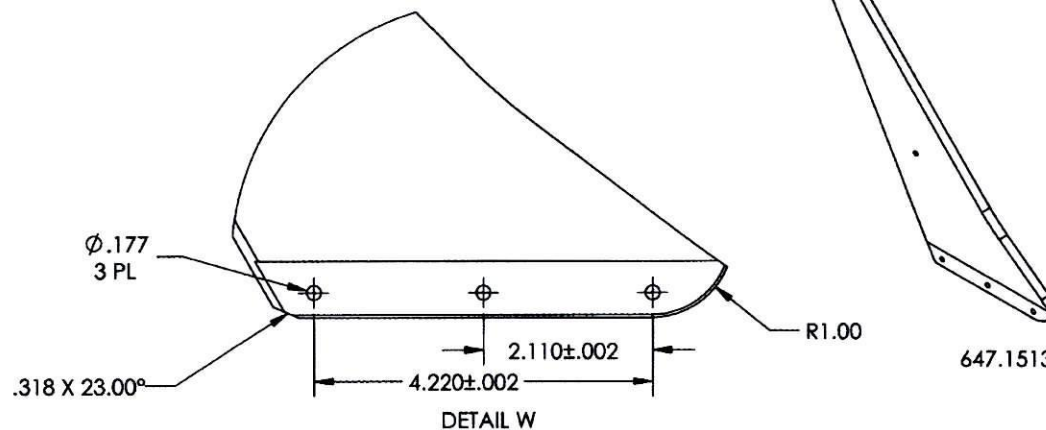
Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

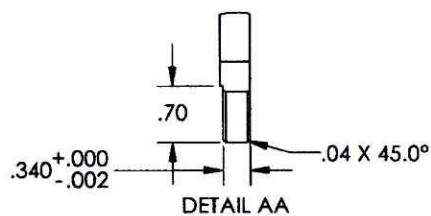
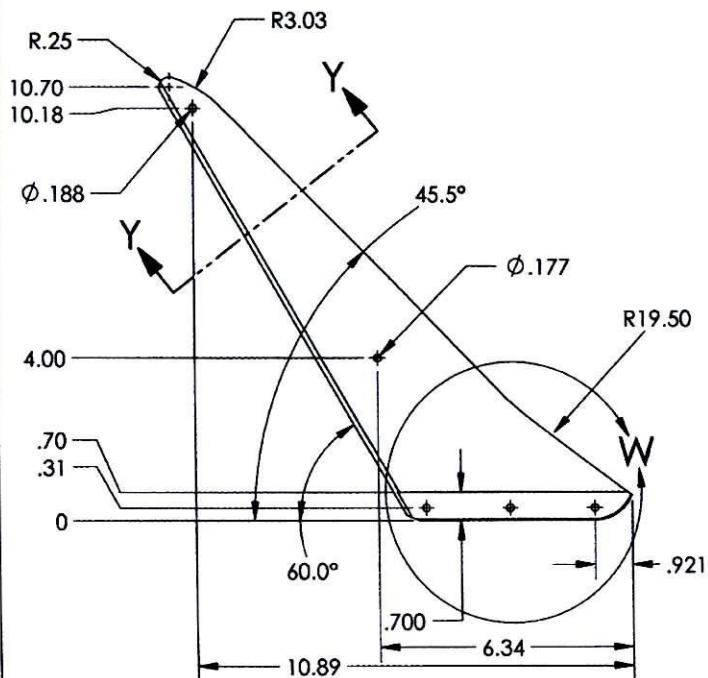
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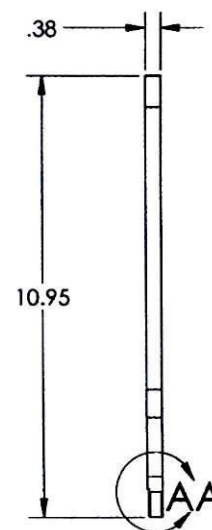
SECTION Y-Y



DETAIL W



DETAIL AA



ORIGINAL DATE 1980-04-18	05-09-80	 DART AEROSPACE AERIAL INDUSTRIES INC. 3030 ENTERPRISE CT. SUITE A VISTA, CA, 92081 (760)-724-5300
DRAWN BY A. GUARDNER	P. BRAVO	
DRAWING APPROVAL P. BRAVO	05-09-80	
CONTRACT NO.		
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.3°		
SIZE CAGE CODE DWG. NO. REV. D 8 07/ML6 647.1500 1		DEFLECTORS

DART 3030 ENTERPRISE CT., SUITE A
AEROSPACE VISTA, CA. 92081
APICAL INDUSTRIES, INC. (760) 724-5300
DBA DART AEROSPACE

DEFLECTORS

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width: 100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																						
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐																						
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																						
Large Fab ☐	Composite ☐	Supplier ☐																							
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																		
Description Work Order Deviation				Disposition																					
								Completed By																	
								Lead hand / Supervisor Approval Verification																	
								QC / QA Coordinator Approval																	
Root Cause		FAULT CATEGORY																							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	OTHER : _____																			

1 2 3 4 5 6 7 8

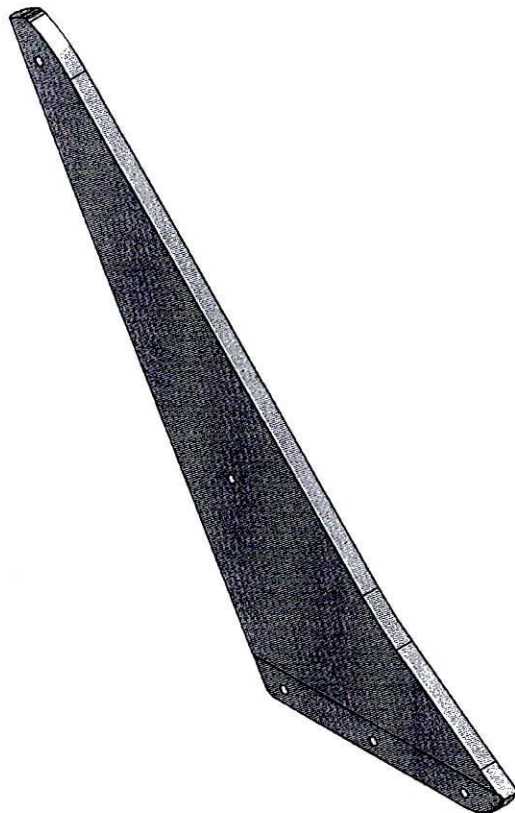
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A

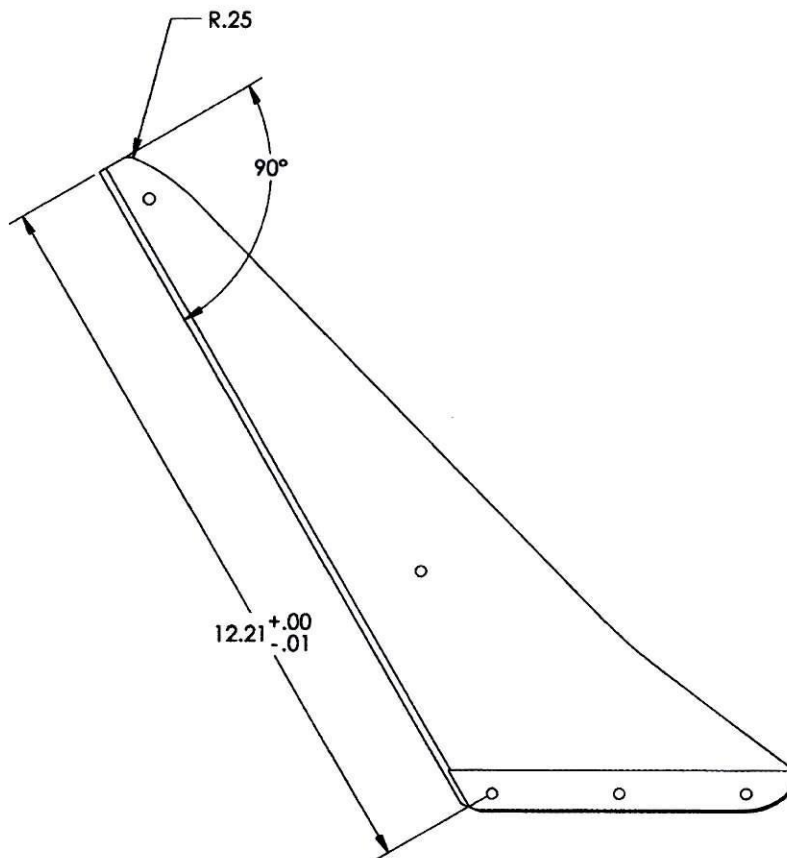
B

C

D



647.1514  6



ORIGINAL DATE 04-04-1981		04-10-01	
DRAWN BY J. GARDNER		CHECKED P. BRAVO	
DRAWING APPROVAL P. BRAVO		04-10-01	
CONTRACT NO.			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°			
DART AEROSPACE 3030 ENTERPRISE CT., SUITE A VISTA, CA 92081 (760) 724-5300		DEFLECTORS	
SIZ B	CAGE CODE 07M26	DWG. NO. 647.1500	REV. D
SCALE NONE		SHEET 7 OF 7	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

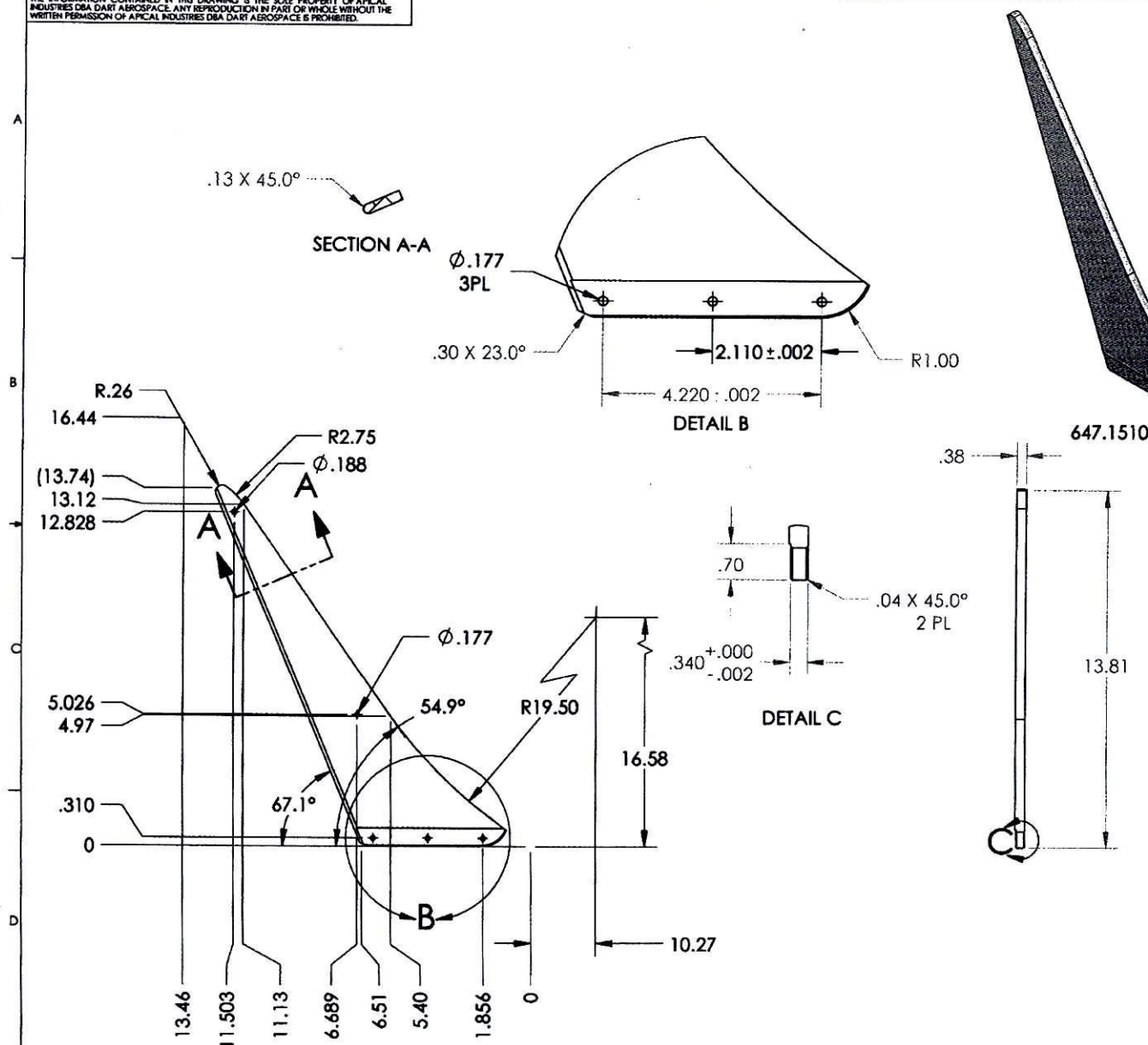
Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																																																										
Description Work Order Deviation				Disposition				Completed By																																																									
								Lead hand / Supervisor Approval Verification																																																									
								QC / QA Coordinator Approval																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER :			
Misidentified ☐	Past Due ☐																																																																

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES DBA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF APICAL INDUSTRIES DBA DART AEROSPACE IS PROHIBITED.

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
	LAST PROTOTYPE REVISION: P81		P. BRAGG
NAC	INITIAL RELEASE	04/10/09	P. BRAGG
A	INCORPORATED ECH 02960, 0467 & 0473	11/17/14	P. BRAGG
B	INCORPORATED ECH 00331	02/27/16	P. BRAGG
C	INCORPORATED ECH 00344	03/15/16	P. BRAGG
D	INCORPORATED ECH 00551	11/01/16	P. BRAGG

NOTES:

1. MATERIAL: ALUMINUM 7075-T651 PER AMS-QQ-A-250/12
2. FINISH PER MPP-172 SECTION 2.1, 3.3 & 4.3, 1-2 MIL MAX
3. DEBURR AND BREAK ALL SHARP EDGES
4. IDENTIFY IAW MPP-120
5. APPLY F/N 5 AS REQUIRED TO ALL FAYING SURFACES OF F/N 2 & 3 UPON ASSY
6. MAKE FROM 647.1513



		7	647.1514	UPPER DEFLECTOR			
		6	647.1513	UPPER DEFLECTOR			
	A/R	5	601.2045	RTV, LOCITE 598			
		2	4	600.0523	RIVET	MS20470ADA-12	
		1	3	647.1512	BREAKAWAY TIP		
		1	2	647.1511	LOWER DEFLECTOR		
			1	647.1510	UPPER DEFLECTOR		
		X		647.1501	LOWER DEFLECTOR ASSY		
		.1501	FINISH	PART #	DESCRIPTION	MATL	SPEC.

QTY	ORIGINAL DATE	PARTS LIST													
NEXT ASSY (S)	INCHES	 30300 ENTERPRISE CT. SUITE A VISTA, CA 92081 (760)-724-5300													
647.1400	DRAWN BY 1. GARDNER CHECKED BY P. BRICCO DRAWING APPROVAL 2. BLAVO 3. GARDNER COMPANY CT. NO.	DEFLECTORS <table border="1"> <thead> <tr> <th>SIZE</th> <th>CAGE CODE</th> <th>QTY. NO.</th> <th>REV.</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>07M746</td> <td>647.1500</td> <td>D</td> </tr> <tr> <td colspan="3">SCALE NONE</td> <td>1 SHEET 1 OF 7</td> </tr> </tbody> </table>		SIZE	CAGE CODE	QTY. NO.	REV.	2	07M746	647.1500	D	SCALE NONE			1 SHEET 1 OF 7
SIZE	CAGE CODE	QTY. NO.	REV.												
2	07M746	647.1500	D												
SCALE NONE			1 SHEET 1 OF 7												
	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 1. PLACE DECIMALS 2.01 2. PLACE DECIMALS 2.005 3. PLACE DECIMALS 2.000														

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

PO038682

Items

Line Item	Job	Part	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
			Hard Anodize Black and Prime as Per Dwg 646.3800							
Line Item Note RUSH 7	168025	646.3813	AS350 Strut Bracket Issue P/O to ATG : Hard Anodize Black and Prime as Per Dwg 646.3800	Firmed	12/22/17	5 pcs	0 pcs	5 pcs	\$7.10/pcs	\$35.50
							15	22-12-17	ms	
Line Item Note RUSH 8	168239-A	646.3610	Filler Issue P/O to ATG : 1- Hard Anodize Black and Prime as per Dwg 646.3600	Firmed	1/17/18	6 pcs	0 pcs	6 pcs	\$7.60/pcs	\$45.60
9	168239	646.3610	Filler Issue P/O to ATG : 1- Hard Anodize Black and Prime as per Dwg 646.3600	Firmed	1/17/18	12 pcs	0 pcs	12 pcs	\$7.60/pcs	\$91.20
							6x	12/1/18	ms	
10	168280	647.0210	Rail Issue P/O to ATG : AS PER MPP-172 SECTION 2.1, HARD ANODIZE COLOR BLACK, PER IAW MIL-A-8625 TYPE 3 CLASS 2 AS PER MPP-172 SECTION 4.2, PRIME AS PER IAW MIL-PRF-23377 TYPE 1 CLASS N	Firmed	1/17/18	11 pcs	0 pcs	11 pcs	\$11.50/pcs	\$126.50
							12x	12/1/18	ms	
11	168223	646.3110	Channel Issue P/O to ATG : 1- Hard Anodize Black and Prime as per Dwg 646.3100	Firmed	12/22/17	6 pcs	0 pcs	6 pcs	\$11.65/pcs	\$69.90
							11x	12/1/18	ms	
Line Item Note RUSH 12	168839	649.4813	Shim ISSUE P/O: As Per MPP-172 Section 2.1, Hard Anodize IAW MIL-A-8625, Type III, Class 2, Color Black As Per MPP-172 Section 4.2 Prime IAW MIL-P-23377J Type1 Class N	Firmed	12/22/17	20 pcs	0 pcs	20 pcs	\$7.25/pcs	\$145.00
							6x	22-12-17	ms	
Line Item Note RUSH 13	169183	649.5212	Bracket Issue P/O to ATG : 1- Hard Anodize Black as per Dwg	Firmed	1/17/18	5 pcs	0 pcs	5 pcs	\$10.00/pcs	\$50.00
							20x	22-12-17	ms	
							5x	12/1/18	ms	



A.T.G. Industries Inc.
731 Industrielle Street
Rockland, ON K4K 1T2
Canada

Ph: (613) 446-4544

Fax: (613) 446-4556

Pack List

Number: 914370

Date: 05-Jan-18

To

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ship To

Chantal Lavoie
Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ph: 613 632-9577

Fax: 613 632-1053

Ph: 613 632-9577

Fax: 613 632-1053

Ph: 613 632-9577 Fax: 613 632-1999		OUR TRUCK	
Terms		Ship Via	
		OUR TRUCK	
Quantity	Description		
	Please reference this document's Pack List number on all correspondences regarding this shipment. If you have any questions, please contact us.		
11 ea	Part: 647.0210 Rail Hard Black Anodize per MIL-A-8625F, Type III, Class 2, .0005-.0045" (.5 - 4.5mils) Prime per MIL-PRF-23377, Type I, Class N (Customer Supplied), .0001-.0002" (.1 - 2 mils) per drawing. Job: 22198		Rev: N/C PO: PO038682 Line: 10
5 ea	Part: 649.5212 Bracket Hard Black Anodize per MIL-A-8625F, Type III, Class 2, .0005-.0045" (.5 - 4.5mils) Prime per MIL-PRF-23377, Type I, Class N (Customer Supplied), .0006-.0009" (.6 - .9 mils) per drawing. Job: 22201		Rev: A PO: PO038682 Line: 13
20 ea	Part: 649.4812 Shim Hard Black Anodize per MIL-A-8625F, Type III, Class 2, .0005-.0045" (.5 - 4.5mils) Prime per MIL-PRF-23377, Type I, Class N (Customer Supplied), .0006-.0009" (.6 - .9 mils) per drawing. Job: 22193		Rev: D PO: PO038682 Line: 5
6 ea	Part: 646.3610 Filler Hard Black Anodize per MIL-A-8625F, Type III, Class 2, .0005-.0045" (.5 - 4.5mils) Prime per MIL-PRF-23377, Type I, Class N (Customer Supplied), .0006-.0009" (.6 - .9 mils) per drawing. Job: 22196		Rev: N/C PO: PO038682 Line: 8
12 ea	Part: 646.3610 Filler Hard Black Anodize per MIL-A-8625F, Type III, Class 2, .0005-.0045" (.5 - 4.5mils) Prime per MIL-PRF-23377, Type I, Class N (Customer Supplied), .0006-.0009" (.6 - .9 mils) per drawing. Job: 22196		Rev: N/C PO: PO038682 Line: 8
Made in Canada.			



A.T.G. Industries Inc.
731 Industrielle Street
Rockland, ON K4K 1T2
Canada

Ph: (613) 446-4544

Fax: (613) 446-4556

Pack List

Number: 914370

Date: 05-Jan-18

To

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ship To

Chantal Lavoie
Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ph: 613 632-9577

Fax: 613 632-1053

Ph: 613 632-9577

Fax: 613 632-1053

Terms		Ship Via	
		OUR TRUCK	
Quantity	Description		
	- .9 mils) per drawing. Job: 22197 PO: PO038682 Line: 9		
CERTIFICATE OF CONFORMANCE A.T.G Industries Inc. certifies that all items in this shipment conform to the requirements. Date: <u>05/01/2018</u> Certified Signature: <u>[Signature]</u> Receiver Signature: <u>2018-01-11</u> A.T.G Industries Inc. is AS9100 Registered and Nadcap Chemical Processing Accredited. Note: This Packing Slip may contain parts that have been PLATED. Items that are plated may be subject to natural tarnishing and it is suggested that they be inspected within 24 hours of receipt.			
Made in Canada.			

Operation Number	Operation	Serial Number	Job	Quantity	Weight	Original Serial Number	Location	Container	Status	Added	Special Comments	Label	Supplier	Change No
Part Number: 647.0210 Revision: Rail														
190	QC21-SA	S019474	168280	11 Ea	0	S019474	CCK089		Stock	12/10/2017	Issue Container			
Operation Totals:		1		11	0									
Part Totals:		1		11	0									
Part Number: M7075T6S1.750X2.250 Revision: 7075-T6 Sheet 1.750" X 2.250"														
100	Receive Ft	S019468	168280	0 ft	0		Start Up Machining		Stock	12/10/2017	Issue Container			
Operation Totals:		1		0	0									
Part Totals:		1		0	0									
Totals:		2		11	0									